



The law of Gibrat applied in the manufacturing SMEs of Ecuador

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La ley de Gibrat aplicada en las pymes manufactureras de Ecuador
Lei do Gibrat aplicado na fabricação de PME do Equador

The present investigation analyses the relationship between the size of the companies and their growth in contrast to Gibrat's law, for which it analyses a sample of 2,915 Ecuadorian manufacturing companies in the period 2012-2016. We apply regression by quantiles for panel data in order to establish the effect of variables with business characteristics and financial performance on the company's growth measured through sales and the number of employees. The results show that smaller companies grow at higher rates than larger companies. This evidence allows us to reject Gibrat's law since there is a negative relationship between the size and growth of manufacturing companies.

La presente investigación analiza la relación entre el tamaño de las empresas y su crecimiento, contrastando la ley de Gibrat, para lo cual analiza una muestra de 2.915 empresas manufactureras ecuatorianas en el periodo 2012-2016. Aplicamos regresión por cuantiles para datos de panel con el fin de establecer el efecto de las variables con características empresariales y de desempeño financiero sobre el crecimiento de la empresa medido a través de las ventas y el número de empleados. Los resultados muestran que las empresas de menor tamaño crecen a mayores tasas que las empresas más grandes. Esta evidencia permite rechazar la ley de Gibrat ya que existe una relación negativa entre el tamaño y el crecimiento de las empresas manufactureras.

Esta pesquisa examina a relação entre o tamanho das empresas e o seu crescimento, contrastando a lei do Gibrat, que examina uma amostra de 2.915 empresas de fabricação equatoriana no período 2012-2016. Nós aplicamos o Quantil de regressão para dados de painel para estabelecer o efeito de variáveis com características empreendedoras e desempenho financeiro sobre o crescimento da companhia medido pelo número de empregados e vendas. Os resultados mostram que as pequenas empresas crescem a taxas mais elevadas do que as grandes empresas. Esta prova permite rejeitar a lei de Gibrat desde que exista uma relação negativa entre o tamanho e o crescimento das companhias de fabricação.

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1. Introduction

Business growth is a desirable goal from both the business and macroeconomic perspectives. In the first case, it becomes transcendental since it allows a change in the strategic direction, structure and organizational capacities of a company (Ripollés & Menguzzato, 2001). In the second, business growth is an essential factor that allows boosting the economy of a country. That is why the economic, social and cultural factors that determine their behaviour are investigated worldwide (Audretsch et al., 2004).

The present study considers the postulates of Gibrat's law or law of proportional effects, which relates size to the growth of companies (Gibrat, 1931). In particular, this law proposes independence between business growth rates and their size (Carrizosa, 2010, Miralles et al., 2017, Simbaña et al., 2017).

In recent years, a considerable number of investigations focused on verifying compliance with this law has been developed. However, most of these studies have been carried out in developed countries, contributing their results to improve the public policy of these countries. Despite this, these findings cannot be fully applied in companies in developing countries, precisely due to differences in their social and economic environment (Nassar et al., 2014; Simbaña et al., 2017; Miralles et al., 2017).

Worldwide, small and medium-sized companies play an important role in the development of countries, mainly due to the high degree of job creation. In Ecuador, SMEs generate 65% of employment and contribute 13% to the gross domestic product (GDP) (INEC, 2017).

According to Jácome & King (2013), the productive policy in Ecuador seeks the participation and inclusion of small and medium enterprises in the development of the business tissue, since SMEs are considered as the most productive sector in the economy of developed countries and those in the process of development. Ecuador has a large number of SMEs in the manufacturing sector, which have great relevance in the labour and commercial market; therefore, the business development of this sector is considered a primary objective from the economic and social perspective (Amores & Castillo, 2017).

In this paper we try to analyse the influence of size, as well as other factors, on the growth of companies in a developing country such as Ecuador and in this way, provide information for business decision making as well as for the design of public policies (Segarra & Teruel, 2014; Daza, 2015). In particular, and considering the importance of the topic of business growth and the manufacturing sector, this research addresses different aspects related to small and medium-sized Ecuadorian companies belonging to this economic activity.

To perform the empirical test, it is used as a variable explained the growth measured through the logarithmic difference in size (sales and employment) and as explanatory variables: sales, number of employees, capital, and age. Besides, the quantile regression model is used for panel data with the purpose of discovering the underlying relationships of the growth phenomenon along the distribution of growth rates.

KEY WORDS
Gibrat's Law, manufacturing, size, business growth, SMEs, Ecuador.

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PALABRAS CLAVE
ley de Gibrat, manufactureras, tamaño, crecimiento empresarial, pymes, Ecuador.

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PALAVRAS CHAVE
Lei de Gibrat, fabricação, tamanho, negócio crescimento, PME, Ecuador.

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This issue is especially important because it allows covering the existing vacuum in the literature on the study of the phenomenon of business growth in a country that has an economy in transition. In addition, it applies a novel technique such as quantile regression for panel data with the purpose of investigating the relationships of growth with its explanatory variables. Another important contribution is the analysis of a sample that includes all of the small and medium manufacturing companies in Ecuador. Regarding the growth model, it can be highlighted that variables with business characteristics and financial performance are used as determinants (Simbaña et al., 2017).

The present work is structured as follows: in the second section, a review of the literature is performed to explain business growth based on previous studies that address this issue from various approaches, all of them based on the model established by Gibrat's law, from which the hypotheses are derived. Section 3 describes the sample and the study variables, as well as the estimation strategy and the model specification. Section 4 presents the results of the univariate and multivariate analysis. Finally, section 5 describes the main conclusions, limitations and future lines of research.

2. Review of literature

The growth of the company is considered by several authors as an indicator of performance (Daunfeldt & Elert, 2013; Simbaña et al., 2017). Although there is no general definition of business growth so far, several authors have tried to establish concepts about this phenomenon, such as those suggested by Acosta et al. (2001) who affirm that the concept of growth depends on the focus of the research and on the variables used to measure it. As regards the review of the previous literature related to the results of Gibrat's law, it varies according to the moment of analysis and the variables used to measure the growth and size of a company (Acosta et al., 2001). As previously mentioned, the research carried out mostly focuses on samples from companies in developed countries such as the United States, the United Kingdom, and Japan. Also, it is necessary to highlight that the third part of these studies focused on the manufacturing sector (Miralles et al., 2017).

When categorizing the result found by researchers in relation to Gibrat's law, three types of studies are identified: those that reject the law, those that agree with the independence between size and business growth, and others that found fractional results, i.e.; a part of their study allows to accept Gibrat's law while the other part leads rejecting it.

Among the studies focused on manufacturing companies we find results that reject Gibrat's law, such as those found by Almus & Nerlinger (2000), Becchetti & Trovato (2002), Goddard et al. (2002), Oliveira & Fortunato (2003), Pagano & Schivardi (2003), Harris & Trainor (2005), Oliveira & Fortunato (2006), Coad (2008), Levratto et al. (2010), Mukhopadhyay & Amirkhalkhali (2010), Piergiovanni (2010), Segarra & Teruel (2014) and Megaravalli & Sampagnaro (2017).

In contrast, several studies validated Gibrat's law like Fariñas & Moreno (2000) and Fujiwara et al. (2004) and others partially validated Gibrat's law; Calvo (2004), Fotopoulos & Giotopoulos (2010), Aslan (2008), Leischnig et al. (2016) and Fiala (2017).

Table 1 shows a detail that synthesizes the studies carried out on compliance with Gibrat's law for manufacturing companies and studies that, although they have not focused on the manufacturing sector, have considered it in their sample of companies.

Table 1 - Summary of literature review

<i>Reject</i>	<i>Accept</i>	<i>Fractionated results</i>
<i>Studies focusing manufacturing companies</i>		
Almus & Nerlinger (2000)	Fariñas & Moreno (2000)	Calvo (2004)
Becchetti & Trovato (2002)	Fujiwara et al. (2004)	Fotopoulos & Giotopoulos (2010)
Goddard et al. (2002)		Aslan (2008)
Pagano & Schivardi (2003)		Leischnig et al. (2016)
Oliveira & Fortunato (2003)		Fiala (2017)
Harris & Trainor (2005)		
Oliveira & Fortunato (2006)		
Coad (2008)		
Piergiovanni (2010)		
Levratto et al. (2010)		
Mukhopadhyay & Amirkhalkhali (2010)		
Megaravalli & Sampagnaro (2017)		
<i>Studies that include manufacturing companies in the sample</i>		
Falk (2008)	Lensink et al. (2005)	Carrizosa (2010)
Bentzen et al. (2012)	Ishikawa et al. (2016)	Serrasqueiro et al. (2010)
Daunfeldt & Elert (2013)		Donati (2016)
Gjini (2014)		
Segarra & Teruel (2014)		
Simbaña et al. (2017)		

Source: own elaboration

It is important to mention that the only research for Ecuador related to this topic is that carried out by Simbaña et al. (2017) who established that Gibrat's law is not met for a sample of 41,333 Ecuadorian companies of all economic sectors for the period 2000-2013.

The results presented above do not show conclusive evidence of how the size of the company influences on its growth, which leads us to raise our first hypothesis:

H_1 : There is independence between the size and growth of manufacturing companies.

In addition to size, other relevant variables have been considered when determining the growth of companies. Age is one of them, because it is considered an indicator of business stability and growth

(Gjini, 2014; Simbaña et al., 2017). Thus, Piergiovanni (2010) focused on studying growth in a group of Italian manufacturing companies, for the period 1995-2005 found that younger companies grew faster than mature companies because companies grow at a faster pace in their early life. However, after assuring their survival, they start a slower growth, these results agree with those found by Calvo (2004) and Fotopoulos & Giotopoulos (2010). That is to say, that age has an impact on the growth of companies, based on the arguments above about the relationship between age and business growth, the following hypothesis is put forward:

H_2 : Age has a negative impact on the growth of manufacturing enterprises.

Another determinant of growth analyzed by the literature is capital, which can be used to measure the effect of economies of scale on the survival of companies (Bentzen et al., 2012). That is why several researchers in their studies consider capital a significant variable for business growth. On the other hand, Segarra & Teruel (2014) established that capital shows a positive influence on the growth of the company. On the other hand, Bentzen et al. (2012) found a negative relationship between capital and business growth.

Based on what has been mentioned in these studies, which suggests a positive relationship between the growth of capital and the growth of the company, the following hypothesis is posed:

H_3 : Capital growth has a positive impact on the growth of manufacturing companies.

3. Methodology

The present section describes the sample and the variables used, as well as the estimation strategy and the specification of the econometric model used in the multivariate analysis.

3.1. Data and Sample

The present study was done in 2018 and the information analyzed was extracted from the database of the Superintendency of Companies of Ecuador. The complete directory of companies was constituted by a total of 183,088 companies, which after being refined according to criteria such as: legal situation, economic activity, presentation of balance sheets, size of the company and inconsistencies in the observations, resulted in a final sample of 9,778 observations corresponding to 2,915 companies, which remained active during the period 2012-2016, the summary of the purification performed can be seen in **Table 2**. The debugging process made it possible to establish a panel database that presents temporary and cross-sectional dimensions of the companies. The importance of the models based on this technique is that they allow capturing both specific individual effects and temporal effects (Arellano & Bover, 1990).

This study focuses its analysis on a database composed of small and medium-sized companies, which is structured in 30% by medium-sized companies and 70% by small companies, which corroborates the figures reported by the INEC (2014), affirming that within the group of SMEs, the highest number of companies is concentrated in the group of small companies.

Table 2 - Firms sample construction

<i>Item</i>	<i>Firms</i>
Total companies directory	183.088
Active companies	78.735
Active manufacturing companies	5.980
Active manufacturing companies that presented balance sheets in the period 2012-2016	5.145
Active manufacturing SMEs that presented balance sheets in the period 2012-2016	2.923
Companies discarded due to lack of data	8
Final sample	2.915

Source: own elaboration

3.2. Definition and measurement of the variables

To make the empirical test a combination of five variables related to business characteristics and financial performance is used, in particular, the following were used: size, sales, number of employees, age, and capital (Segarra & Teruel, 2014; Simbaña et al., 2017; Miralles et al., 2017).

Sales and the number of employees are the variables used to determine the size of the company in line with the studies of Segarra & Teruel (2014) and Simbaña et al. (2017).

In terms of sales (s) and capital (k), they are expressed in US dollars and correspond to the information in the financial statements (Coad & Rao, 2008; Segarra & Teruel, 2014). On the other hand, the number of employees (emp) is expressed in units according to the number of full-time employees of the company. The growth rate of these variables is calculated through the logarithmic difference of these variables (Coad et al., 2016; Simbaña et al., 2017).

The age (age) corresponds to that of the company expressed in years from the date of incorporation of the company until the date on which the analysis was carried out (Serrasqueiro et al., 2010; Coad et al., 2016). To represent the size of the company (size) considering the classification made by the Superintendence of Companies, a dummy variable is used, where number 1 identifies small companies and 2 identifies medium companies (Levratto et al., 2010; Heshmati, 2001).

Table 3 describes the variables used in the present study.

Table 3 - Description of variables

<i>Group</i>	<i>Factor</i>	<i>Description</i>	<i>Measurement</i>
Dependent		Sales growth Employment growth	
Company characteristics		Size: Sales delayed one period Size: Employment delayed one period Age	
Financial characteristics		Capital growth	

Source: own elaboration

Using quantile regression techniques Coad & Rao (2008), Serrasqueiro et al., (2010) and Bentzen et al., (2012) analyze the growth of companies. These investigations consider the regression technique to be optimal because it provides estimates taking into account the position that the company occupies along the distribution of the growth rate so that a complete view of the relationship between the independent variables and the growth of the company.

Vicéns & Sánchez (2012) state that quantile regression is a technique that was used in its beginnings with the aim of reducing the sum of absolute errors weighted with asymmetric weights, its application allows obtaining better results when using a large amount of cross-sectional data. Canay (2011) exposes a set of conditions to establish a quantile regression of panel data with fixed effects that allow the researcher to take into account the heterogeneity and control of unobserved covariates.

In order to determine business growth in the manufacturing sector of Ecuador, two models are proposed around the growth of sales (and the growth of employees), in line with the studies of Delmar et al. (2013), Brenner & Schimke (2015) and Simbaña et al. (2017). Now, the models are expressed as follows:

$$\begin{aligned} \text{Sales growth} & \quad (1) \\ \text{Employment growth} & \quad (2) \end{aligned}$$

Where represents the growth of sales and the growth of the number of employees (logarithmic annual size difference), of company i in period t , which represent the dependent variables of each proposed model. While the β of the size delayed a period, it allows to verify the compliance or not of the Gibrat's law ($\beta = 0$ the law is fulfilled; $\beta \neq 0$ is not fulfilled). Whereas is the error term that is extracted in the following way: where symbolizes the part of the specific error of the subject (unobservable heterogeneity) that agglomerates the unobservable data that only affects the company, represents the shocks that occur at time t affecting all subjects equally, finally, identifies the random disturbance (Miralles et al., 2017).

4. Empirical results

4.1. Univariate analysis

As a first analysis, Kernel density estimation of the growth rate measured by sales and the number of employees is performed, which are presented in **figures 1 and 2** respectively. The density of the general sample presents the traditional bell shape (Coad & Rao, 2008). It can be seen that the distribution of growth in manufacturing companies is not normally distributed as shown in **figures 1 and 2** (Demirel & Mazzucato, 2010). Also, an excessive concentration of density is observed in the central values (leptokurtic), which are higher than those that would correspond to a theoretical log-normal distribution (González-Val et al., 2014). This fact is not consistent with the hypothesis that the size of companies is the result of a process of stochastic growth (Oliveira & Fortunato, 2003).

Figure 1. Kernel estimates of sales growth rates

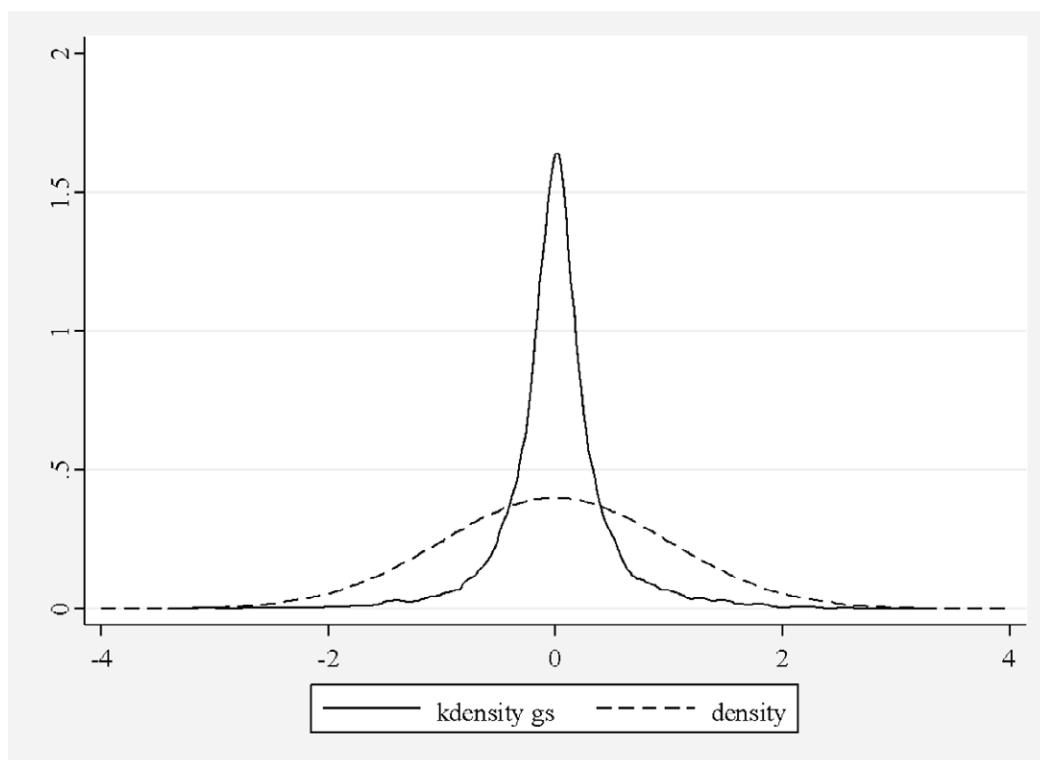
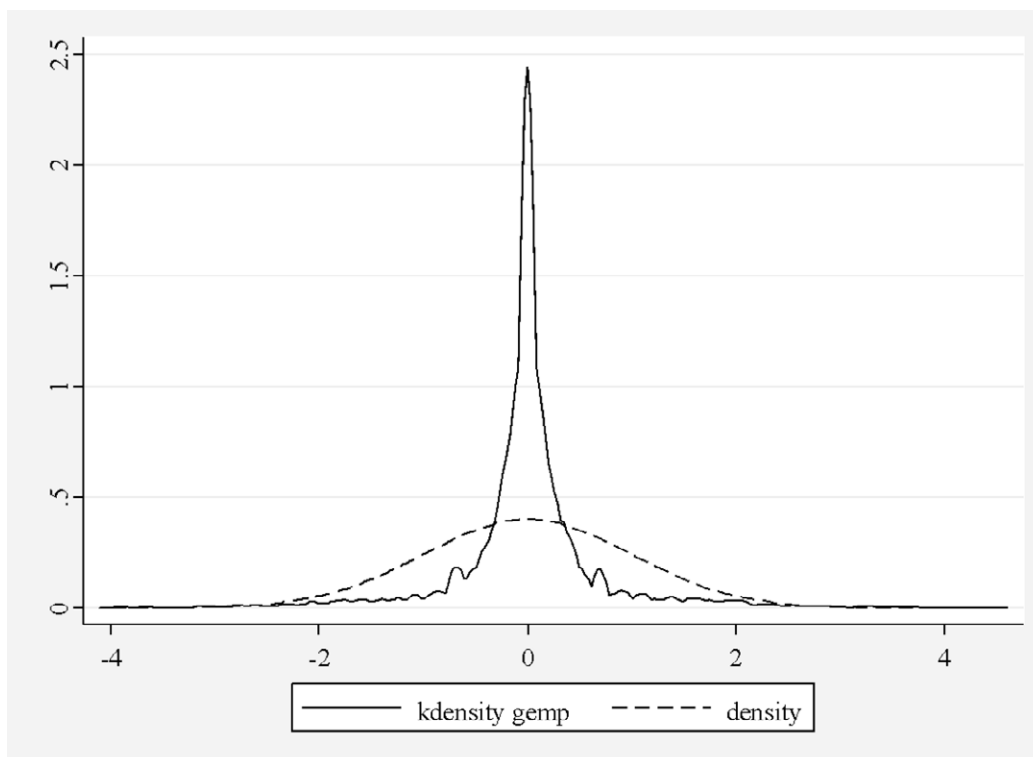


Figure 2. Kernel estimates of sales growth rates



Before performing the business growth analysis, it is important to provide the descriptive statistics (**Table 4**). The averages of the variables investigated in the study period and their growth measured through their annual logarithmic difference are sales (s) USD 1'121.578,00 and growth (gs) of 1.18%, capital (k) USD 117,048.70 its growth (gk) 17,32%. Regarding the number of employees (emp) the companies present an average of approximately 24 employees, with a maximum of 1,999 and the average growth of this figure (gemp) is 0.64%. Regarding age (age), their average is 14.28 years reaching a maximum of 84 years of age.

Another issue that concerns that type of study is the correlation matrix, according to Aivazian et al. (2005) there is a problem of collinearity between the variables when the correlation coefficients are greater than 30%, starting from this postulate and using a level of significance of 5% we found no correlation between the variables that explain the relationships between size and growth.

Table 4 - Descriptive statistics for explanatory variables

Variable	Obs.	Mean	Standard deviation	Min.	Max.
s	9778	1121578	1133647	100092.1	4996704
emp	9778	24.33054	53.0185	1	1999
k	9778	117048.7	548824.8	100	15000000
age	9778	14.28165	12.64215	0	84
gs	6513	0.0117656	0.481362	-3.407889	3.349525
gemp	6513	0.0064584	0.7199268	-4.10759	4.59512
gk	6513	0.1732141	0.8618854	-6.214608	8.417051

Source: own elaboration

Notes: *Obs.* denotes the number of observations. *Min.* and *Max.* denote the minimum and maximum value, respectively. Growth is calculated through the logarithmic difference of each variable.

4.2. Multivariate analysis

Table 5 and **Table 6** present the results obtained from the estimations using quantile regressions for panel data. These results allow evaluating the effect of size on the distribution of the company's growth rate. From which it can be seen that the results vary according to the position of the company throughout the distribution (Coad et al., 2016).

It can be seen that the size of the company measured through sales and the number of employees lagged a period has a significant negative effect on all quantiles, except in the quantile 0.90 for sales, in which there is no relationship. In addition, in both cases it can be seen that β are less than 0, which indicates that small companies have higher growth than larger companies, so Gibrat's Law is not fulfilled and, as a result, hypothesis 1 is rejected, this finding is in agreement with the results of Coad (2008), Piergiovanni (2010) and Levratto et al. (2010) analysing manufacturing companies. They also fit with the findings of Daunfeldt & Elert (2013), Segarra & Teruel (2014) and Simbaña et al. (2017) analyzing several economic sectors including manufacturing, and those of Daunfeldt et al. (2012), Almsafir et al. (2015) and Miralles (2018) analysing other economic sectors, different from manufacturing.

Regarding age (age), it can be observed that it has a significant positive impact on the median both for the growth measured through sales and for the number of employees, in addition, the positive impact is also maintained in quantiles 0, 10 and 0.75 when the growth is measured through the number of employees. However, there is a significant negative relationship in the 0.25 quantile when growth is measured through sales and the number of employees. While for the other quantiles not mentioned, it does not present any relation. Consequently, hypothesis 2 is rejected because the results are not conclusive because, according to the quantile, the relationship coefficient changes sign.

The negative relationship, according to Calvo (2004) indicates that the youngest companies are those that experienced greater growth; however, the growth of the company tends to decrease with age (Levratto et al., 2010). While the positive relationship of age shows that mature companies have the highest growth rates, which is explained by the theory of learning through time, which holds that companies gradually learn their relative efficiency after entering the market and need to grow at a higher rate if they want to survive (Jovanovic, 1982).

In terms of financial performance represented by capital growth (*gk*) shows a significant positive relationship in the 0.25 quantile when growth is measured through sales and quantile 0.10 when this is measured through the employees, likewise in both cases, there is a significant positive relationship in the median. However, in the growth model by the number of employees, a significant negative relation is observed in the 0.25 quantile. Consequently, hypothesis 3 is rejected because the results are inconclusive. According to Doms et al. (1995), the positive relationship means that the intensity of capital encourages companies to grow if they want to survive, being a motivator of business growth. While the negative relationship between capital and the growth of companies indicates that this variable acts as a barrier to growth and increases the probability of exit from the company (Carrizosa, 2007).

Table 5 - Fixed effects estimates on sales growth

Variable	QR_10	QR_25	QR_50	QR_75	QR_90
<i>llns</i>	-0.990***	-0.869***	-0.778***	-0.809***	-2.047
	0.071	0.040	0.036	0.045	1.495
	(0.000)	(0.000)	(0.000)	(0.000)	(0.171)
<i>age</i>	-0.014	-0.009*	0.032***	0.008	-0.250
	0.028	0.004	0.002	0.007	0.310
	(0.628)	(0.017)	(0.000)	(0.247)	(0.420)
<i>gk</i>	-0.028	0.036**	0.123***	0.007	2.283
	0.058	0.013	0.008	0.022	3.265
	(0.622)	(0.007)	(0.000)	(0.764)	(0.484)
<i>Obs</i>	6513	6513	6513	6513	6513

Source: own elaboration

Note: All regressions include a full set of year dummies. Robust standard errors are presented in parenthesis. *, ** and *** indicate significance at 0,1%, 1% and 5% level, respectively.

Table 6 - Fixed effects estimates on employees growth

Variable	QR_10	QR_25	QR_50	QR_75	QR_90
<i>llnemp</i>	-1.018***	-1.037***	-0.022***	-1.080***	-1.000***
	0.013	0.032	0.002	0.047	0.062
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
<i>age</i>	0.018***	-0.012***	0.001***	0.042***	0.007
	0.000	0.002	0.000	0.005	0.008
	(0.000)	(0.000)	(0.000)	(0.000)	(0.357)
<i>gk</i>	0.621***	-0.230**	0.007*	0.038	0.327
	0.009	0.078	0.003	0.038	0.296
	(0.000)	(0.003)	(0.018)	(0.323)	(0.270)
<i>Obs</i>	6513	6513	6513	6513	6513

Source: own elaboration

Note: All regressions include a full set of year dummies. Robust standard errors are presented in parenthesis. *, ** and *** indicate significance at 0,1%, 1% and 5% level, respectively.

5. Conclusions, recommendations and future lines of research

Se puede notar que en materia de gobernabilidad la baja participación política de los ciudadanos en las decisiones estratégicas como sucede en Brasil, Colombia y Perú dificulta el control político directo y con ello favorece las prácticas de corrupción. Con relación a esto, el Programa *Connexus Initiative* de INTERPOL que presenta una división especial para contrarrestar los crímenes forestales en el Amazonas considera como supuesto que la criminalidad medioambiental está conectada con otros crímenes análogos, y menciona precisamente como el tema más destacado por los 69 países estudiados la problemática de la corrupción (INTERPOL y UNEP, 2016: 13-16).

Los obstáculos para contrarrestar las economías ilícitas y su efecto en la gobernabilidad se vinculan también con la dinámica misma del mercado mundial y la demanda de ciertos recursos naturales. Por ejemplo, algunos minerales “pueden llegar a valer 19 veces más que el precio de la cocaína” lo cual hace que el sector minero informal esté en alza (Bergenas y Knight, 2015). Esto a la vez fomenta el incremento de nuevas modalidades de violencia vinculadas al control de tales recursos.

En la experiencia empírica, desde la perspectiva político-institucional, la presencia de mercados informales obstaculiza notablemente la fiscalización y el control de las actividades económicas. Se estima que las acciones de interdicción son muy costosas y necesitan importantes recursos humanos para el desplazamiento territorial y continuidad en el tiempo (Dargent y Urteaga, 2016). Conjuntamente, la distinción entre productos legales e ilegales supera las capacidades de aplicación de la ley cuando los agentes gubernamentales en el terreno no cuentan con el entrenamiento y recursos adecuados; en consecuencia, se diluye la posibilidad de identificación de los crímenes medioambientales y se fomenta una compleja relación entre la economía formal e informal (Wright, 2011).

De acuerdo con el trabajo de campo realizado y la revisión bibliográfica sobre la temática se puede inferir que existe una tendencia exponencial al crecimiento de las economías ilícitas en la Amazonia. En tal sentido, actividades económicas de este tipo como el narcotráfico, la minería ilegal y el tráfico de vida silvestre, favorecidas por la demanda internacional, las prácticas de corrupción, y una cultura política de baja participación ciudadana en las decisiones de agenda pública obstruyen estructuralmente la institucionalidad política. Entre las principales propuestas para contrarrestar esta tendencia están, entre otras: la gobernanza medioambiental plasmada en la protección de la biodiversidad, la penalización efectiva del impacto ecológico producto de la informal, y el fomento de medidas de transparencia en la gestión para desalentar la corrupción como práctica social frecuente.

A la vez, la transparencia gubernamental mejora la gobernabilidad, pero va acompañada de la supervisión de las ciudadanías. Lograr mayor empoderamiento de las comunidades locales para así participar en las decisiones que afectan sus intereses es primordial. Para lograr esto es importante comenzar por socializar el acceso a la información para mejorar la distribución de poder en democracias que normalmente tienden a centralizarlo. De lo contrario las restricciones en el acceso público a la información y la justicia establecen “culturas de silencio” (Brisman, 2013) que reducen posibilidades futuras de enfrentar la degradación medioambiental, la inequidad social y la violencia.

En definitiva, tanto a nivel local como en la triple frontera amazónica esta combinación de problemáticas vinculadas a la economía paralela, la insuficiente institucionalidad política, los conflictos socioambientales, el aumento de la criminalidad organizada y la necesidad de aplicar de forma eficaz

las normativas existentes para contrarrestar la degradación del ecosistema, la inequidad social, la inseguridad y el desplazamiento forzado de personas están demandando una única solución: una mayor presencia del Estado.

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